

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A game machine system comprising a set top box (STB) receiving a television satellite broadcast signal and supplying television program data corresponding to the received television satellite broadcast signal to a display device, the STB including a server device, the game machine system also comprising a the display device[[],] and a game executing device, which are the STB, the display device, and the game executing device being connected to each other to form the game machine system via a digital communication line that is external to each of the server device STB, the display device, and the game executing device,

 said server device included in the STB comprising:

 an information storage unit for storing game software information including a game control program and display data used to form a game screen in accordance with said game control program;

 game software information acquisition means for acquiring said game software information which is provided by means of broadcasting or via a dedicated communication line and storing the acquired game software information in said information storage unit; and

 information transmitting means for reading necessary information from said information storage unit in response to a request received via said digital

communication line and transmitting said information over said digital communication line,

said game executing device comprising:

game selection command input means for inputting a game selection command to select a specified game;

a game selection request transmission means for transmitting, over said digital communication line, a game selection request for selection of the game specified by said game selection command input via said game selection command input means;

game control command input means for inputting a game control command;

information request transmission means for transmitting, over said digital communication line, an information request for providing necessary information in accordance with the game control program specified by said game selection command and in accordance with the game control command input via said game control command input means;

information acquisition means for acquiring necessary information from information received via said digital communication line; and

image generation means for generating an image in accordance with game display data included in said information acquired via said information acquisition means and transmitting the image information representing the generated image over said digital communication line,

said display device comprising:

Appl. No. 09/697,554
Reply to Office Action of October 29, 2003

image information acquisition means for acquiring image information transmitted via said digital communication line; and image displaying means for displaying an image in accordance with the image information acquired via said image information acquisition means.

2. (Previously Presented) A game machine system according to Claim 1, wherein said image information acquisition means of said display device is capable of acquiring data-compressed image information transmitted from said STB included server device over said digital communication line and also image information generated, data-compressed, and transmitted over said digital communication line by said game executing device, and said display device comprises:

decompression means for decompressing the data-compressed image information acquired by said image information acquisition means; and image synthesizing means for synthesizing an image from the image represented by the image information which has been received from said server device and then decompressed by said decompression means and the image represented by the image information which has been generated by said game executing device and then decompressed by said decompression means.

3. (Previously Presented) A game machine system according to Claim 1, wherein said server device included in the STB further comprises:

additional information acquisition means for acquiring additional information associated with selectable information used in a game and storing said additional information in said information storage unit, said additional information being supplied by means of broadcasting or via a dedicated communication line; and

additional information transmission means for reading the information acquired as said additional information in response to an additional information providing request received via said digital communication line and then transmitting said information over said digital communication line instead of the original information used in the game;

said game executing device further comprising:

additional information selection command input means for inputting an additional information selection command specifying additional information to be used instead of the original selectable information used in the game; and

additional information request transmission means for transmitting a request for additional information specified by said additional information selection command input via said additional information selection command input means, over said digital communication line.

4. (Original) A game machine system according to Claim 1, wherein one of devices connected to said digital communication line includes:

communication line connecting means for connecting a communication line with a game software information provider in response to a command issued by a user; and

information request transmission means for transmitting, in response to a command issued by the user, a request for desired information to said game software information provider via the communication line connected by said communication line connecting means.

5. (Original) A game machine system according to Claim 1, wherein one of devices connected to said digital communication line includes:

a usage history information storage unit for storing information about the history of usage of games; and

usage history information updating means for updating said information about the history of usage of games stored in said usage history information storage unit, when said game selection command transmission means of said game executing device has transmitted said game selection command,

thereby making it possible to perform accounting in accordance with the usage history information stored in said usage history information storage unit.

6. (Original) A game machine system according to Claim 5, wherein one of devices connected to said digital communication line includes:

communication line connecting means for connecting a communication line with said game software information provider; and

usage history information transmission means for transmitting said usage history information stored in said usage history information storage unit via said communication line,

at a scheduled time or in response to a usage history information transmission request transmitted from said game software information provider via said communication line.

7. (Original) A game machine system according to Claim 1, wherein said digital communication line includes a digital serial bus.

8. (Original) A game machine system according to Claim 1, wherein said digital communication line includes a wireless communication channel.

9. (Currently Amended) A set top box (STB) server device in an STB receiving a television satellite broadcast signal and supplying television program data corresponding to the received television satellite broadcast signal to a display device, a game machine system comprising said STB server device, a the display device, and a game executing device [[,]] ~~which are~~ being connected to each other via a digital communication line that is external to each of the STB server device, the display device, and the game executing device to form a game machine system, said STB server device comprising:

an information storage unit for storing game software information including a game control program and display data used to form a game screen in accordance with said game control program;

game software information acquisition means for acquiring said game software information which is provided by means of broadcasting or via a dedicated communication line and storing the acquired game software information in said information storage unit; and

information transmitting means for reading necessary information from said information storage unit in response to a request received via said digital communication line and transmitting said information over said digital communication line.

10. (Previously Presented) An STB server device according to Claim 9, further comprising:

additional information acquisition means for acquiring additional information associated with selectable information used in a game and storing said additional information in said information storage unit, said additional information being supplied by means of broadcasting or via a dedicated communication line; and

additional information transmission means for reading the information acquired as said additional information in response to an additional information providing request received via said digital communication line and then transmitting said information over said digital communication line instead of the original information used in the game.

11. (Previously Presented) An STB server device according to Claim 9, further comprising:

communication line connecting means for connecting a communication line with a game software information provider in response to a command issued by a user; and

information request transmission means for transmitting, in response to a command issued by the user, a request for desired information to said game software information provider via the communication line connected by said communication line connecting means.

12. (Previously Presented) An STB server device according to Claim 9, further comprising:

a usage history information storage unit for storing information about the history of usage of games; and

usage history information updating means for updating said information about the history of usage of games stored in said usage history information storage unit, when said game selection command transmission means of said game executing device has transmitted said game selection command over said digital communication line,

thereby making it possible to perform accounting in accordance with the usage history information stored in said usage history information storage unit.

13. (Previously Presented) An STB server device according to Claim 12, further comprising:

communication line connecting means for connecting a communication line with a game software information provider; and

usage history information transmission means for transmitting said usage history information stored in said usage history information storage unit via said communication line, at a scheduled time or in response to a usage history information transmission request transmitted from said game software information provider via said communication line.

14. (Currently Amended) A game executing device in a game machine system comprising a server device included as part of a set top box (STB), the STB receiving a television satellite broadcast signal and supplying television program data corresponding to the received television satellite broadcast signal to a display device, and said game executing device, said display device, and said STB being which are connected to each other via a digital communication line that is external to each of the STB included server device, the display device, and the game executing device, said game executing device comprising:

game selection command input means for inputting a game selection command to select a specified game;

a game selection request transmission means for transmitting, over said digital communication line, a game selection request for selection of the game specified by said game selection command input via said game selection command input means;

game control command input means for inputting a game control command;

information request transmission means for transmitting, over said digital communication line, an information request for providing necessary information in accordance with the game control program specified by said game selection command and in accordance with the game control command input via said game control command input means;

information acquisition means for acquiring necessary information from information received via said digital communication line; and

image generation means for generating an image in accordance with game display data included in said information acquired via said information acquisition means and transmitting the image information representing the generated image over said digital communication line.

15. (Previously Presented) A game executing device according to Claim 14, further comprising:

additional information selection command input means for inputting an additional information selection command specifying additional information to be used instead of selectable information used in a particular game; and

additional information request transmission means for transmitting a request for additional information specified by said additional information selection command input via said additional information selection command input means, over said digital communication line.

16. (Previously Presented) A game executing device according to Claim 14, further comprising:

communication line connecting means for connecting a communication line with a game software information provider in response to a command issued by a user; and

information request transmission means for transmitting, in response to a command issued by the user, a request for desired information to said game software information provider via the communication line connected by said communication line connecting means.

17. (Previously Presented) A game executing device according to Claim 14, further comprising:

a usage history information storage unit for storing information about the history of usage of games; and

usage history information updating means for updating said information about the history of usage of games stored in said usage history information storage unit, when said game selection command transmission means of said game executing device has transmitted said game selection command over said digital communication line,

thereby making it possible to perform accounting in accordance with the usage history information stored in said usage history information storage unit.

18. (Previously Presented) A game executing device according to Claim 17, further comprising:

communication line connecting means for connecting a communication line with a game software information provider; and

usage history information transmission means for transmitting said usage history information stored in said usage history information storage unit via said communication line, at a scheduled time or in response to a usage history information transmission request transmitted from said game software information provider via said communication line.

19. (Currently Amended) A display device in a game machine system comprising a server device included as part of a set top box (STB), said STB receiving a television satellite broadcast signal and supplying television program data corresponding to the received television satellite broadcast signal to said display device, and a game executing device, said

Appl. No. 09/697,554
Reply to Office Action of October 29, 2003

display device, and said STB being which are connected to each other via a digital communication line that is external to each of the STB included server device, the display device, and the game executing device, said display device comprising:

image information acquisition means for acquiring data-compressed image information transmitted from said server device over said digital communication line and also image information generated, data-compressed, and transmitted over said digital communication line by said game executing device;

decompression means for decompressing the data-compressed image information acquired by said image information acquisition means;

D1
image synthesizing means for synthesizing an image from the image represented by the image information which has been received from said server device and then decompressed by said decompression means and the image represented by the image information which has been generated by said game executing device and then decompressed by said decompression means; and

image displaying means for displaying the image synthesized by said image synthesizing means.

20. (Original) A display device according to Claim 19, further comprising:
communication line connecting means for connecting a communication line with a game software information provider in response to a command issued by a user; and

information request transmission means for transmitting, in response to a command issued by the user, a request for desired information to said game software information provider via the communication line connected by said communication line connecting means.

21. (Original) A display device according to Claim 19, further comprising:
a usage history information storage unit for storing information about the history of usage of games;

usage history information updating means for updating said information about the history of usage of games stored in said usage history information storage unit, when said game selection command transmission means of said game executing device has transmitted said game selection command over said digital communication line,
thereby making it possible to perform accounting in accordance with the usage history information stored in said usage history information storage unit.

22. (Original) A display device according to Claim 21, further comprising:
communication line connecting means for connecting a communication line with a game software information provider; and
usage history information transmission means for transmitting said usage history information stored in said usage history information storage unit via said communication line, at a scheduled time or in response to a usage history information transmission request transmitted from said game software information provider via said communication line.

23. (Currently Amended) A method of using a game using a game machine system comprising a server device included as part of a set top box (STB), the STB receiving a television satellite broadcast signal and supplying television program data corresponding to the received television satellite broadcast signal to a display device, and a game executing device, said display device, and said STB being which are connected to each other via a digital communication line that is external to each of the STB included server device, the display device, and the game executing device, said method comprising:

D
a game software information acquisition step in which said STB included server device acquires game software information supplied via broadcasting or a dedicated communication line and stores the acquired game software information in an information storage unit of said STB included server device, said game software information including a game control program and game displaying data used to form a game screen in accordance with said game control program;

an information transmission step in which said STB included server device reads necessary information from said information storage unit in response to a request received via said digital communication line and transmits said information over said digital communication line;

a game selection request transmission step in which said game executing device accepts a game selection command issued by a user to select a specified game and transmits, over said digital communication line, a game selection request for selection of the game specified by said game selection command;

an information request transmission step in which said game executing device accepts a game control command issued by the user and transmits, over said digital communication line, a request for providing necessary information in accordance with the game control program specified by said game selection command and in accordance with said game control command accepted via game control command input means;

an information acquisition step in which said game executing device acquires necessary information from information received via said digital communication line;

an image generation step in which said game executing device generates an image in accordance with game display data included in said information acquired in said information acquisition step and transmits the image information representing the generated image over said digital communication line;

an image information acquisition step in which said image display device acquires image information transmitted via said digital communication line; and

an image displaying step in which said image display device displays an image in accordance with the image information acquired in said image information acquisition step.

24. (Previously Presented) A method of using a game according to Claim 23, wherein said image information acquisition step performed by said display device acquires data-compressed image information transmitted from said STB included server device over said digital communication line and also acquires image information generated, data-compressed, and transmitted over said digital communication line by said game executing device;

and wherein method further comprises the steps of:

decompressing the data-compressed image information acquired in said image information acquisition step; and

synthesizing an image from the image represented by the image information which has been received from said server device and then decompressed in said decompression step and the image represented by the image information which has been generated by said game executing device and then decompressed in said decompression step.

25. (Previously Presented) A method of using a game according to Claim 23, further comprising:

D | an additional information acquisition step in which said STB included server device acquires additional information associated with selectable information used in a game and storing said additional information in said information storage unit, said additional information being supplied by means of broadcasting or via a dedicated communication line;

an additional information transmission step for reading the information acquired as said additional information in response to an additional information providing request received via said digital communication line and then transmitting said information over said digital communication line instead of the original information used in the game;

an additional information selection command input step in which said game executing device accepts an additional information selection command specifying additional information to be used instead of selectable information used in the game; and

an additional information request transmission step for transmitting a request for additional information specified by said additional information selection command accepted in said additional information selection command input step, over said digital communication line.

26. (Original) A method of using a game according to Claim 23, further comprising:
a connection command acceptance step for accepting a connection command indicating that a communication line should be connected with a game software information provider;
a communication line connecting step for connecting a communication line with said game software information provider in response to said connection command accepted in said connection command acceptance step;
a command acceptance step for accepting a command indicating that a request for specified information should be transmitted to said game software information provider; and
an information request transmission step for transmitting, in response to said command accepted in said command acceptance step, a request for specified information to said game software information provider via the communication line connected in said communication line connecting step.

27. (Original) A method of using a game according to Claim 26, further comprising:
an authentication step in which said game software information provider performs authentication when said game software information provider receives an information providing request via said communication line connected in said communication line connecting step;

a requested information providing step for, if the sender of said information providing request is determined as an authorized user in said authentication step, supplying the requested information by means of broadcasting or via a dedicated communication line; and

an accounting step for performing an accounting process when a message indicating that the reception of the information is completed is received via said communication line connected in said communication line connecting step.

28. (Original) A method of using a game according to Claim 27, further comprising:
an information usage permission transmission step for, if the sender of said information providing request is determined as an authorized user in said authentication step, transmitting an information usage permission message indicating that the use of the requested information is permitted to said sender of said information providing request; and
an information usage permission message reception step in which said sender of said information providing request receives said information usage permission message transmitted from said game software information provider via said communication line connected in said communication line connected step.

29. (Original) A method of using a game according to Claim 23, further comprising a usage history information updating step for updating information stored in a usage history information storage unit about the history of usage of the requested and selected game, when said game selection request is transmitted in said game selection request transmission step,

thereby making it possible to perform accounting in accordance with the usage history information stored in said usage history information storage unit.

30. (Original) A method of using a game according to Claim 29, further comprising:
a communication line connecting step for connecting a communication line with said game software information provider; and
a usage history information transmission step for transmitting said usage history information stored in said usage history information storage unit via said communication line, at a scheduled time or in response to a usage history information transmission request transmitted from said game software information provider via said communication line.

31. (Original) A method of using a game according to Claim 23, wherein said digital communication line includes a digital serial bus.

32. (Original) A method of using a game according to Claim 23, wherein said digital communication line includes a wireless communication channel.